

CLAIMS

What is claimed is:

1. An electrophotographic printer comprising:
a photosensitive drum on which an electrostatic latent image is formed;
at least one development unit having a developing roller to form a toner image by supplying toner to the electrostatic latent image; and
a pre-transfer erasing unit to remove charges from a non-image region of the photosensitive drum by irradiating light onto the photosensitive drum after the toner image is developed, the pre-transfer erasing unit comprising:
a pre-transfer erasing lamp to irradiate light, and
a pre-transfer erasing lens to induce the light generated from the pre-transfer erasing lamp to the photosensitive drum, movably installed such that it moves to an erasure position at which the pre-transfer erasing lens is close to the photosensitive drum to provide erasure, and to a retracted position spaced apart from the photosensitive drum so as not to interfere therewith when the photosensitive drum unit is being mounted or dismounted.
2. The electrophotographic printer of claim 1, wherein the pre-transfer erasing unit further comprises an elastic member to provide elasticity in a direction in which the pre-transfer erasing lens moves to the retracted position, the pre-transfer erasing lens contacting the development unit when the developing unit is mounted to then move to the erasure position, and the pre-transfer erasing lens returning to the retracted position by the elasticity of the elastic member when the development unit is extracted.
3. The electrophotographic printer of claim 2, wherein the photosensitive drum unit is mounted or dismounted in a vertical direction, and the development unit is mounted or dismounted while sliding in a horizontal direction.
4. The electrophotographic printer of claim 1, further comprising a plurality of development units containing different color toners, wherein the pre-transfer erasing unit further comprises an elastic member providing elasticity in a direction in which the pre-transfer erasing lens moves to the retreat position, the pre-transfer erasing lens contacting at least one of the

plurality of development units to then be moved to the erasure position, and the pre-transfer erasing lens returning to the retracted position by the elasticity of the elastic member when the development unit is extracted.

5. The electrophotographic printer of claim 4, further comprising a transfer belt positioned above the photosensitive drum and to which the toner image is transferred, the pre-transfer erasing unit contacting one among the plurality of development units that is closest to the transfer belt to move to the erasure position.

6. The electrophotographic printer of claim 5, wherein the photosensitive drum is mounted on or dismounted in a vertical direction.

7. The electrophotographic printer of claim 6, wherein the plurality of development units are mounted or dismounted while sliding in a horizontal direction.

8. The electrophotographic printer of claim 2, wherein the pre-transfer erasing unit further comprises a holder installed in the printer having a printed circuit board fixed thereon to hold the pre-transfer erasing lamp.

9. The electrophotographic printer of claim 8, wherein the pre-transfer erasing lens is rotatably installed on the holder.

10. The electrophotographic printer of claim 9, wherein the development unit causes the pre-transfer erasing lens to rotate toward the photoconductive drum when the development unit is being mounted in the printer and causes the pre-transfer erasing lens to retract from the photoconductive drum by elasticity of the elastic member when the development unit is being dismounted from the printer.

11. The electrophotographic printer of claim 10, wherein the development unit is mounted within the printer in a horizontal direction with respect to the photoconductive drum.

12. The electrophotographic printer of claim 10, wherein the development unit is mounted within the printer in a lengthwise direction with respect to an axial rotation direction of the photoconductive drum.

13. An electrophotographic printer comprising:
a photosensitive drum on which an electrostatic latent image is formed;
at least one development unit to form a toner image on the photoconductive drum; and
a pre-transfer eraser member to remove charges from a non-image region of the photosensitive drum by irradiating light onto the photosensitive drum after the toner image is developed, the pre-transfer erasing member being movable to a first position to direct the irradiated light to the photosensitive drum to perform eraser and being movable to a second position spaced apart from the photosensitive drum when the photosensitive drum unit is being mounted or dismounted.

14. The electrophotographic printer of claim 13, wherein the pre-transfer eraser member moves to the first position in response to mounting of the at least one development unit within the printer and moves to the second position in response to dismounting of the development unit from the printer.